WINTER RAPTOR SURVEY PROJECT PROTOCOL

In an effort to get a better understanding of the biology of wintering birds of prey in Oregon, the southern portions of Washington, the California portion of the Klamath Basin, and in Idaho, the East Cascades Audubon Society located in Bend, OR sponsors an extensive survey project designed to reveal population levels and densities for the species that choose to winter in the project area. Volunteers in this citizen science project conduct surveys during November through March on established route transects under the guidance of a Project Coordinator who assists with volunteers needs as well as receives all data collected on the surveys which is then displayed in various project charts and graphs.

Collecting data for this project should be done in as uniform a way as possible by all volunteers so the following survey protocol is offered as a guidance tool for those involved in the census work. Adhering to these guidelines by all involved will insure that data will be collected as uniformly as possible and will be meaningful when compared from year to year.

ROUTE CONSTRUCTION

1. Route size will be based on the best raptor habitat available to survey plus time available by the volunteer to do the survey work. The Project Coordinator will provide a suggested route based on habitat shown on maps and online aerial photos. The suggested route will be supplied to the volunteer scheduled to do the route as a starting point. Volunteers are encouraged to add their comments/suggestions regarding their local knowledge of raptor use in the proposed route area. Working together, a final route path will be determined that hopefully maximizes results for the survey effort to be expended.

SURVEY METHODS

1. Routes will be surveyed once a month during the months of December, January, and February. Additional survey options decided on by each volunteer include surveys conducted during November and March and doing more than one survey in a given month. All survey dates will be determined by each volunteer based on their own life schedules.

2. Surveys should be conducted during favorable weather conditions to get the most return for the effort expended. Excessive wind, fog, and precipitation will force birds to shelter and thus make them less visible to see. If a volunteers life schedule dictates conducting a survey during inclement weather, it will be better to have the survey completed versus having no data for that given month.

3. Volunteers are encouraged to make stops along the route path in order to scan favorable habitat for birds. These stops will be at the discretion of the volunteer, most routes do not have planned stopping points built into the route path.

4. Volunteers should drive slow enough to be able to properly scan all available habitat that they can see that might hold birds. This includes viewing power poles, fence posts, trees, water wheel lines, trees, and any other structure that a bird can perch on . In addition, the skies should be scanned for soaring birds and the ground should be scanned for perching/feeding birds.

5. Suggested driving speeds range up to 30-35 mph to insure viewing coverage. Driving SAFETY will dictate if these slower speeds are safe to do. Volunteers should not compromise their or anyone else's safety on the roads. ECAS will not be held responsible for any accidents resulting from unsafe driving by

volunteers. When in doubt, do not drive in an unsafe manner. Volunteers should also make sure that when stopped to view birds, they are parked in a safe and legal manner so as not to disrupt traffic flow around them and compromise their individual safety.

6. All birds observed along the route path should be counted. Every attempt should be made to determine species of the bird viewed. If that is not possible, an attempt should be made to determine the type of bird it is, ie, falcon, eagle, buteo, owl, accipiter, etc and reported as UNID falcon, etc. If that is not possible, birds can then be classified as unidentified raptors.

7. Birds viewed at some distance may have the possibility of being counted from another part of the survey route depending on the design of the route path. Volunteers should be aware of possible double counting in these circumstances. If there is concern about the possibility of double counting a bird, it will be best to be conservative and not count the bird.

8. Some routes will have circumstances where it will be necessary to back track over previously surveyed roads. In these instances, any NEW birds viewed on the second pass can be added to the survey.

9. Age and sex information of birds counted is not necessary with the exception of aging Bald Eagles. For them, the only age differentiation that we would like to have would be if the bird is a white headed/tailed adult bird (A) or a dark subadult bird (S). Age differentiation for the first four years of a Bald Eagles life, when they do NOT have a white head or tail, is not necessary.

DATA COLLECTION FORM MANAGEMENT

Each route will have their own specific data collection form to be used during surveys. These forms display a sequential list of roads that are driven for each route as well as a suggested list of the more common species that will be seen in the area. Four letter codes are used to denote different species that have been found in this project. Following are codes to be used on the data forms:

BUTEOS include: RTHA - Red-tailed Hawk, RLHA - Rough-legged Hawk, FEHA - Ferruginous Hawk, SWHA - Swainson's Hawk, RSHA - Red-shouldered Hawk

FALCONS include: AMKE - American Kestrel, MERL - Merlin, PEFA - Peregrine Falcon, PRFA - Prairie Falcon, GYRF- Gyrfalcon

ACCIPITERS include: COHA - Cooper's Hawk, SSHA - Sharp-shinned Hawk, NOGO - Northern Goshawk

OWLS include: GHOW - Great Horned Owl, BNOW - Barn Owl, BUOW - Burrowing Owl, SEOW - Short-eared Owl, WESO - Western Screech Owl, NOPO - Northern Pigmy Owl, LEOW - Long-eared Owl, NOSO - Northern Saw Whet Owl, SNOW - Snowy Owl, BAOW - Barred Owl, NOHO - Northern Hawk Owl, GGOW - Great Gray Owl

OTHER SPECIES include: NOHA - Northern Harrier, BAEA - Bald Eagle, GOEA - Golden Eagle, WTKI - White-tailed Kite, OSPR - Osprey, UNID - any bird that you could not ID down to species but could to family, UNID RAP - any raptor observed but no additional breakdown available.

The data collection forms are to be completed as follows:

1. Each time a bird is located, it should be entered on the appropriate road line and in the appropriate species column on the form.

2. Each form will have a few columns designated for family groupings of birds, ie, falcons, accipiters, owls. In an effort to keep the data form to a manageable size in the field, these family grouping columns are included for the less apt to be seen species. When one of these species is encountered, the bird should be entered into the appropriate family column on the appropriate road line using one of the above listed codes to indicate what species was seen.

3. Because owls are the least likely birds to be seen on any given survey, the owl column can be used to record other species found.

4. In addition to bird data, the top of the form displays other data that must be entered as well. These include the DATE that the survey was completed, the amount of TIME that the survey took to complete (minutes recorded in 5 minute increments), and the MILES that were driven to conduct the survey (recorded down to tenths of a mile). Miles driven to get to the start of the route from home and to get from the end of the route back to home should NOT be included.

5. Additional voluntary information that could be included on the form would be weather conditions, other species of interest seen on the survey, non route miles, or anything of note that you thought would be of interest to record. All of this information can be added to the bottom of the form below the TOTALS line.

6. When the survey is completed, the TOTALS line needs to be filled out accurately.

7. Completed forms need to be submitted to the Project Coordinator as soon after each survey as possible. The reason for timely submission is because at the end of each month a summary chart is prepared that will include all the data collected for all of the routes surveyed. This summary chart is then sent to all of the project volunteers as soon as possible to keep everyone informed as to what is being seen and where in as close to real time as possible. Preparation of this summary chart is much quicker if the data is submitted throughout the month rather than waiting until the end when I would have to deal with data from close to 200 routes. Receipt of each completed data form with be acknowledged via email and if there are any questions regarding the submitted data I will contact you for clarification. Accurate completion of data forms speeds up this process.

SAFETY

SAFETY is the number one priority for each and every survey, we want everyone to come home without any negative issues! In order to locate birds while driving, driver speed is probably going to be less than the posted speed limit. Winter road conditions may also be less than ideal. Volunteers should do their bird scanning in a safe manner, maintaining control of their vehicles and at the same time being aware of surrounding traffic in front of them as well as behind. When it is necessary to stop along a road to better scan the habitat for birds, vehicles should be parked safely off of the road surface so as not to create a driving hazard for other drivers on the road. Driver fatigue on longer routes can be an issue. When doing surveys, volunteers should stick to the job at hand and concentrate only on counting raptors and not be distracted by wasting time chasing other wildlife. This is a BIG temptation for sure, but the added driving time needed to look at non survey related situations can lead to driver fatigue at the end of the day and the compromising of the drivers safety so discretion should be exercised at all times so as to insure a safe return to home at the end of the day.